Claim Amendments:

Please amend claims 1, 4, 25, 33, 50, 52, 61, 69, 71, 72 and 74 and cancel claims 8, 9, 34-40, 51, 68, 70 and 73 as follows:

1. (Currently Amended) A system for injecting a patient, comprising:

a container enclosing a hazardous pharmaceutical;

a first pump to deliver a hazardous pharmaceutical to a patient;

a fluid path operably connected to the first pump, the container, and the patient; [[and]]

a hazardous material containment suitable to confine the hazardous pharmaceutical during connection of the hazardous pharmaceutical container to the fluid path; and

a waste container suitable to contain a hazardous pharmaceutical in fluid connection with the fluid path.

2. (Original) The system of claim 1 wherein the hazardous materials containment includes a sealable opening adapted to enable placement of the container in the hazardous materials containment prior to connecting the container to the fluid path.

3. (Original) The system of claim 1 wherein the hazardous materials containment includes a connector in fluid connection with a conduit passing through the hazardous materials containment in a sealed manner, the connector adapted to make a fluid connection with the container, the conduit adapted to be connected to the fluid path.

4. (Currently Amended) The system of claim 1 further comprising at least a second pump operably connected to the fluid path to deliver at least one nonhazardous fluid to the patient.

5. (Original) The system of claim 4 wherein the nonhazardous fluid is a fluid suitable to flush the medication out of the fluid path and into the body or is a fluid suitable to dilute the hazardous pharmaceutical.

6. (Original) The system of claim 5 wherein the nonhazardous fluid is saline.

7. (Original) The system of claim 4 further including a third pump operably connected to the fluid path, the third pump in fluid connection with a source of a contrast fluid.

8-9. (Cancelled)

10. (Original) The system of claim 1 further comprising at least one valve to control flow through the fluid path.

11. (Original) The system of claim 4 further comprising a controller to control the operation of at least the first pump and the second pump.

12. (Original) The system of claim 11 further comprising a user interface in operative connection with the controller.

13. (Original) The system of claim 1 wherein the hazardous material containment comprises a temperature regulator to control the temperature of the hazardous material container.

14. (Original) The system of claim 1 wherein the hazardous material containment comprises a flexible barrier to surround the hazardous pharmaceutical container.

15. (Original) The system of claim 1 wherein the hazardous material containment comprises a container comprising a removable lid to enable placement of the hazardous pharmaceutical within the hazardous material containment, the hazardous material containment further comprising a sealing barrier through which a fluid path element can pass to be placed in fluid connection with the hazardous pharmaceutical container, the sealing barrier being suitable to prevent passage of the hazardous pharmaceutical to the environment outside of the hazardous material containment.

16. (Original) The system of claim 1 wherein the hazardous material containment includes at least one sealing member which forms a seal with the hazardous pharmaceutical container.

17. (Original) The system of claim 4 wherein at least the first pump and the second pump are included in a single injector.

18. (Original) The system of claim 4 wherein each of the first pump and the second pump are energized.

19. (Original) The system of claim 18 further comprising a controller to control the operation of at least the first pump or the second pump.

20. (Original) The system of claim 1 further comprising:

a measurement apparatus that detects a physiological signal of the patient; and

a controller that controls fluid delivery from at least one of the first pump and the second pump based upon the physiological signal to control fluid delivery in relation an organ function.

21. (Original) The system of claim 1 wherein the container is a vessel in which the hazardous pharmaceutical is distributed by a manufacturer.

22. (Original) The system of claim 21 wherein the container encloses sufficient hazardous pharmaceutical for delivery to multiple patients.

23. (Original) The system of claim 1 wherein the container is filled with the hazardous pharmaceutical using a loading device that maintains biohazardous materials containment.

24. (Original) The system of claim 23 wherein the container encloses sufficient hazardous pharmaceutical for delivery to multiple patients.

25. (Currently Amended) The system of claim 1 wherein the fluid path comprises a catheter that is adapted to terminate in a blood vessel of the patient.

26. (Previously Presented) The system of claim 25 wherein the catheter comprises two lumens arranged such that flow from the outer lumen substantially surrounds flow from the inner lumen.

27. (Original) The system of claim 25 wherein the catheter is connected to the fluid path by a connector that provides biohazard containment during connection.

28. (Original) The system of claim 1 wherein the fluid path comprises at least two fluid path elements that are connected by at least one connector that provides biohazard containment during connection.

29. (Original) The system of claim 11 wherein the controller changes flow rate over time.

30. (Original) The system of claim 29 wherein the controller changes the flow such that there are periods of time during which flow rate is increased.

31. (Withdrawn) An assembly for connection to an injector comprising a retention mechanism to retain the assembly and a pressurizing mechanism to pressurize one or more fluids within the assembly for delivery to a patient, the assembly comprising:

at least a first compartment defining an enclosure adapted to enclose a hazardous pharmaceutical container enclosing a hazardous pharmaceutical, the first compartment being adapted to prevent hazardous materials from escaping from the first compartment into the surrounding environment; the at least a first compartment including a first connector to establish a fluid connection with the hazardous pharmaceutical vessel; and

at least a first outlet in fluid connection with the first connector.

32. (Withdrawn) The assembly of claim 31 further including at least a second compartment adapted to contain a fluid other than the hazardous pharmaceutical, the second compartment being in fluid connection with the first outlet.

33. (Currently Amended) A system for injecting a pharmaceutical into an organ of a patient, comprising:

a first pump for injecting the biohazardous pharmaceutical into the local circulation;

a fluid path operably connected to the first pump and disposed between the first pump and the patient;

a second pump operably connected to the fluid path for injecting a fluid sufficient to flush the pharmaceutical out of the fluid path and into the patient;

a measurement apparatus that detects a physiological signal of the patient related to a heart phase; and

a controller that controls fluid delivery from at least one of the first pump and the second pump based upon the physiological signal to synchronize fluid delivery relative to the heart phase to prevent reflux of the pharmaceutical from the local circulation into a system circulation of the patient ~~with an organ function~~.

34-40. (Cancelled)

41. (Withdrawn) A catheter, comprising:

an outer conduit, and

an inner conduit positioned within the outer conduit and having a diameter smaller than the outer conduit, the volume between the outer conduit and the inner conduit defining a first lumen adapted to deliver fluid to the patient; the inside diameter of the inner conduit defining a second lumen adapted to deliver a fluid to the patient.

42. (Withdrawn) The catheter of claim 41 wherein the inner conduit ends rearward of the outer conduit.

43. (Withdrawn) The catheter of claim 41 wherein the flow from the inner conduit is substantially circumferentially surrounded by the flow from the outer conduct.

44. (Withdrawn) A container comprising a flexible sealing member that cooperates with a connector to create a biohazard seal during connection of the container to the connector.

45. (Withdrawn) The container of claim 44 wherein the flexible sealing member is circumferential.

46. (Withdrawn) The container of claim 44 where in the flexible sealing member is axially compressed during connection.

47. (Withdrawn) A connector comprising a first member and a second member, at least one of the first member or the second member comprising a biohazard seal adapted to contain biohazardous material during connection of the first member and the second member.

48. (Withdrawn) A container for a biohazardous material, the container including a first septum sealing a port into the container and a second septum sealing the port, the second septum being spaced from the first septum.

49. (Withdrawn) A system for transferring a pharmaceutical comprising:

a first container enclosing a hazardous pharmaceutical;

a second container to receive the hazardous pharmaceutical;

a first pump to deliver a hazardous pharmaceutical from the first container to the second container;

a fluid path operably connected to the first pump, the first container, and the second container; and

a hazardous material containment suitable to confine the hazardous pharmaceutical during connection of the first container to the fluid path.

50. (Currently Amended) A system for delivering a fluid mixture to a patient comprising:

a container suitable for holding one or more fluids and comprising a hazardous enclosure to shield against harmful effects of a hazardous fluid comprising the one or more fluids; [[and]]

a pump device capable of pumping the one or more fluids from the container and delivering the one or more fluids to the patient; and

a mixing device associated with the pump device for mixing the one or more fluids for delivering a fluid mixture to the patient;

wherein the container is adapted to be removably attachable to the pump device.

51. (Cancelled)

52. (Currently Amended) The system of claim [[51]] 50 wherein the mixing device comprises a sterile tubing set for mixing the one or more fluids.

53. (Previously Presented) The system of claim 50 wherein the hazardous enclosure is adapted to contain a radiopharmaceutical fluid.

54. (Previously Presented) The system of claim 50 wherein the container comprises a heating/cooling element for heating/cooling the one or more fluids.

55. (Previously Presented) The system of claim 50 wherein the container is removably attached to the pump device via a release latch.

56. (Previously Presented) The system of claim 50 wherein the pump device comprises controls positioned on the body of the pump device to control operation of the pump device.

57. (Previously Presented) The system of claim 50 further comprising a remote control device associated with the pump device to control operation of the pump device.

58. (Previously Presented) The system of claim 50 wherein the container is disposable.

59. (Previously Presented) The system of claim 50 wherein the one or more fluids comprises at least a diluent fluid and a radiopharmaceutical fluid.

60. (Previously Presented) The system of claim 50 wherein the pump device comprises a powered injector device.

61. (New) A system for delivering a hazardous fluid to a patient comprising:

a container suitable for holding a hazardous fluid and comprising a hazardous enclosure to shield against harmful effects of the hazardous fluid; [[and]]

a pump device capable of pumping the hazardous fluid from the container and delivering the hazardous fluid to the patient;

a second container removably attachable to the pump device and containing a different fluid from the hazardous fluid; and

a mixing device associated with the pump device for mixing the hazardous fluid and the different fluid for delivering a fluid mixture of the hazardous fluid and the different fluid to the patient;

wherein the container is adapted to be removably attachable to the pump device.

62. (Previously Presented) The system of claim 61 wherein the hazardous fluid comprises a radiopharmaceutical fluid and the hazardous enclosure is radiation shielded.

63. (Previously Presented) The system of claim 61 wherein the container comprises a heating/cooling element for heating/cooling the hazardous fluid.

64. (Previously Presented) The system of claim 61 wherein the container is removably attached to the pump device via a release latch.

65. (Previously Presented) The system of claim 61 wherein the pump device comprises controls positioned on the body of the pump device to control operation of the pump device.

66. (Previously Presented) The system of claim 61 further comprising a remote control device associated with the pump device to control operation of the pump device.

67. (Previously Presented) The system of claim 61 wherein the container is disposable.

68. (Cancelled)

69. (Currently Amended) The system of claim [[68]] 61 wherein the hazardous fluid comprises a radiopharmaceutical fluid and the different fluid comprises a diluent fluid.

70. (Cancelled)

71. (Currently Amended) The system of claim [[68]] 61 wherein the mixing device comprises a sterile tubing set for mixing the hazardous fluid and the different fluid.

72. (Currently Amended) A method for delivering a fluid mixture to a patient comprising:

removably attaching a container suitable for holding one or more fluids to a pump device, the container comprising a hazardous enclosure to shield against harmful effects of a hazardous fluid comprising the one or more fluids;

pumping the one or more fluids from the container with the pump device; [[and]]

mixing the one or more fluids in a mixing device associated with the pump device; and

delivering the one or more fluids to the patient.

73. (Cancelled)

74. (Currently Amended) The method of claim [[73]] 72 wherein the mixing device comprises a sterile tubing set for mixing the one or more fluids.

75. (Previously Presented) The method of claim 72 wherein the one or more fluids comprises at least a diluent fluid and a radiopharmaceutical fluid.

76. (Previously Presented) The method of claim 72 further comprising heating or cooling the one or more fluids with a heating/cooling element associated with the container.

77. (Previously Presented) The method of claim 72 further comprising providing a remote control device associated with the pump device to control operation of the pump device.

78. (Previously Presented) The method of claim 72 further comprising controlling operation of the pump device with controls positioned on the body of the pump device.

79. (Previously Presented) The method of claim 72 further comprising disconnecting the container from the pump device after delivering the one or more fluids to the patient.